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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,390	06/07/2000	Masao Asai	FUJM 17.406	9136

7590 02/11/2004
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EXAMINER

ANDERSON, MATTHEW D

ART UNIT	PAPER NUMBER
2186	6

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,390

Applicant(s)

ASAI, MASAO

Examiner

Matthew D. Anderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2 and 4-25 is/are allowed.
- 6) ☒ Claim(s) 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Iwasa *et al.* (US Patent # 5,522,058).

3. With respect to claim 3, Iwasa *et al.* disclose:

a first bus for outputting data and address (data line 22 and internal bus 5), a second bus (command line 19) and a signal line (sharing indication line 18), as shown in figure 4 and recited in column 10, lines 56-67;

a main memory having a memory section for storing data connected with said first bus and said signal line, said main memory being operable to write data inputted from the first bus into the memory section, output data read from the memory section to the first bus, and receive data and an address from the signal line and write the data and the address into the memory section, as shown in figures 3-5;

a cache memory connected with said first bus and said signal line, as shown in figure 3;

instruction means for outputting to the second bus a command for instruction to write back data of the cache memory into the main memory, by teaching in column 12, lines 6-10, of the write back command issued by the control unit over command line 19;

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a cache memory control section (figure 4, item 17) for performing reading and writing of data between the main memory and the cache memory over the first bus and outputting data and an address of the cache memory to the signal line in accordance with the command inputted on the second bus thereby to perform write back processing in the main memory, by teaching in column 36, lines 10-30, executing a write back operation for a particular address.

Allowable Subject Matter

4. Claims 1-2 and 4-25 are allowed.
5. The following is an examiner's statement of reasons for allowance: the prior art does not teach or suggest to combination of claim elements specifically including the following:

[Claims 1 & 4]: an instruction means for outputting to a second bus a command for instruction to write back data of a cache memory in the main memory, and a cache memory control section including a directory section for storing information regarding an address of the main memory of data stored in the cache and a reset terminal to which a first reset signal is inputted such that, when the first reset signal is asserted, at least an element of the cache memory control section which takes part in control of the first bus except said directory section is reset;

[Claims 2 & 8]: an instruction means for outputting to a second bus a command for instruction to write back data of a cache memory in the main memory, a cache memory control section for performing reading and writing of data between the main memory and the cache memory over the first bus and performing write back processing of the data of the cache memory into the main memory in accordance with the command inputted over the second bus, an interface section for interfacing between the first bus and third bus, and an isolate section

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interposed between an output side of the interface section and the first bus for isolating the output side of the interface section and the first bus from each other when a control signal inputted to a control terminal becomes valid;

[Claim 11]: a dual system comprising a first system and a second system, one of which is operated in an act state, while the other is operated in a standby state, and a memory confounding line and a system confounding line for interconnecting the first system and the second system, each system including an instruction means for outputting to a second bus a command for instruction to write back data of a cache memory in the main memory, a cache memory control section for performing reading and writing of data between the main memory and the cache memory over the first bus and performing write back processing of the data of the cache memory into the main memory in accordance with the command inputted over the second bus.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Amendment

7. In response to the amendment filed 1/9/04: claim 3 has been amended.

Response to Arguments

8. Applicant's arguments filed 1/9/04 have been fully considered but they are not persuasive. With regards to the arguments concerning the connections of the buses to the elements, it is noted that all elements in figures 3-5 are somehow connected, directly or indirectly, to one another. No elements are merely floating alone. Therefore, the Examiner recommends amending the claims to contain some sort of language such as "directly connected."

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach similar cache write back systems.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Anderson whose telephone number is (703) 306-5931. The examiner can normally be reached on Monday-Friday, 2nd Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (703) 305-3821. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Matthew D. Anderson
February 4, 2004



MATTHEW KIM
SUPERVISORY PATENT EXAMINER
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